MERCER
Investment Consulting

August 19, 2005

Total Fund Review – Second Quarter Board Meeting
Arizona State Retirement System

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Economic Environment

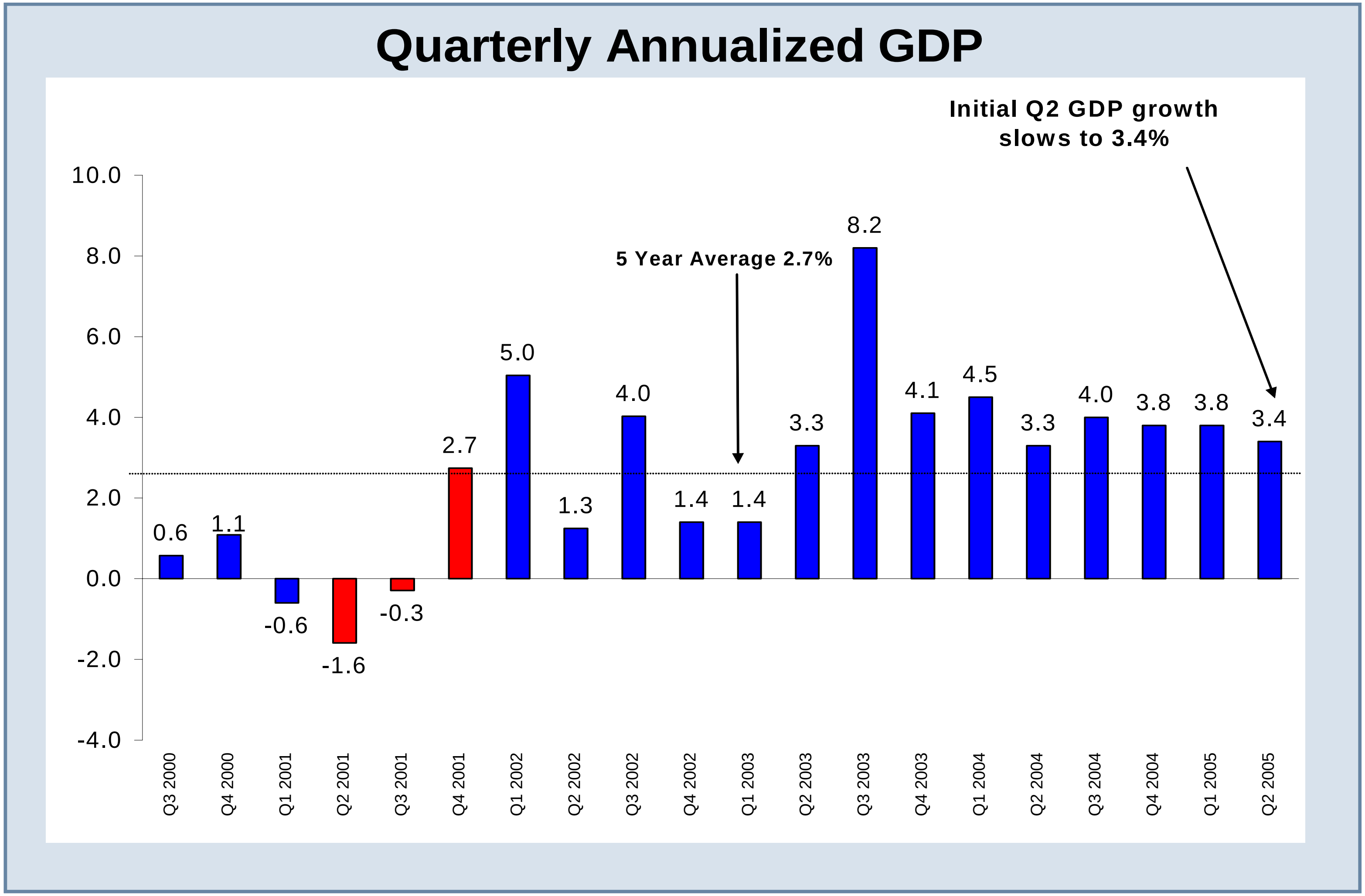
Economy Continues to Expand at Healthy Pace

- The US economy continues to produce moderate growth around its long-term average. The Commerce Department's initial estimate of second quarter GDP growth was 3.4%, in line with consensus estimates, but down from the upwardly revised 3.8% growth in Q1.
- During the quarter, analysts were worried about a slumping economy, burdened by higher oil prices, higher interest rates, and lackluster consumer spending in certain sectors. However, the recent statistics indicate a rebound to above-average growth.
- Interest rates early in the second quarter may have hindered growth, but long rates declined sharply, with the 10-year bond dropping from 4.50% to 3.94%.
- By the end of the quarter, the positives outweighed the negatives.

Economy Continues to Expand at Healthy Pace
Positives Outweighed the Negatives

- Employment growth remained steady. Jobs increased by 542,000, initial claims declined, and the unemployment rate dropped to 5.0%.
- Industrial production (up 0.9% for the quarter), retail sales (up 3.2%), and housing (new starts up 9.3%) appear solid.
- Tax receipts at the federal, state, and municipal levels are stronger than expected, indicating a healthy economy. The federal government expects its budget deficit to be lower than projected.
- Currently, economic growth appears slightly better than average. Analysts expect GDP to decline slightly in the next few months. Overall, GDP for all of 2005 should be 3.5%, right at the long-term average.

Steady Growth: GDP Shows 9 Consecutive Quarters at or Above 5-Year Average



Relatively Benign Inflation Data Eases Fears

- Inflation fears peaked early in the second quarter amid oil prices rising above $60/barrel. These higher energy prices failed to spark much retail inflation (domestic auto manufacturers, for example, had to offer discounts to move inventory).

	2004				2005	
	1Q	2Q	3Q	4Q	1Q	2Q
Quarter Change	1.7%	1.2%	0.1%	0.2%	1.1%	0.6%
Year-over-Year Change	1.7%	3.3%	2.5%	2.8%	3.1%	2.5%

- Breakeven inflation dropped sharply during the quarter. In March, the breakeven inflation rate was at 2.7%, its highest level since August 1997, but it dropped to 2.3% by June (its lowest level in almost two years).

Relatively Benign Inflation Data Eases Fears

- The Producer Price Index was up only 0.3% for the quarter and is up 4.9% over the trailing year. Through May, the Personal Consumption Expenditure Price Index was up 2.2% over the trailing year.
- The Fed hiked rates twice during Q2, raising the Fed Funds rate to 3.25% from 1.0% just one year ago. It is widely expected that the Fed will raise rates another 25 basis points at the next FOMC meeting in August.
- Going forward, we continue to affirm 2.5% as our estimate of inflation for the next year as well as the long run.

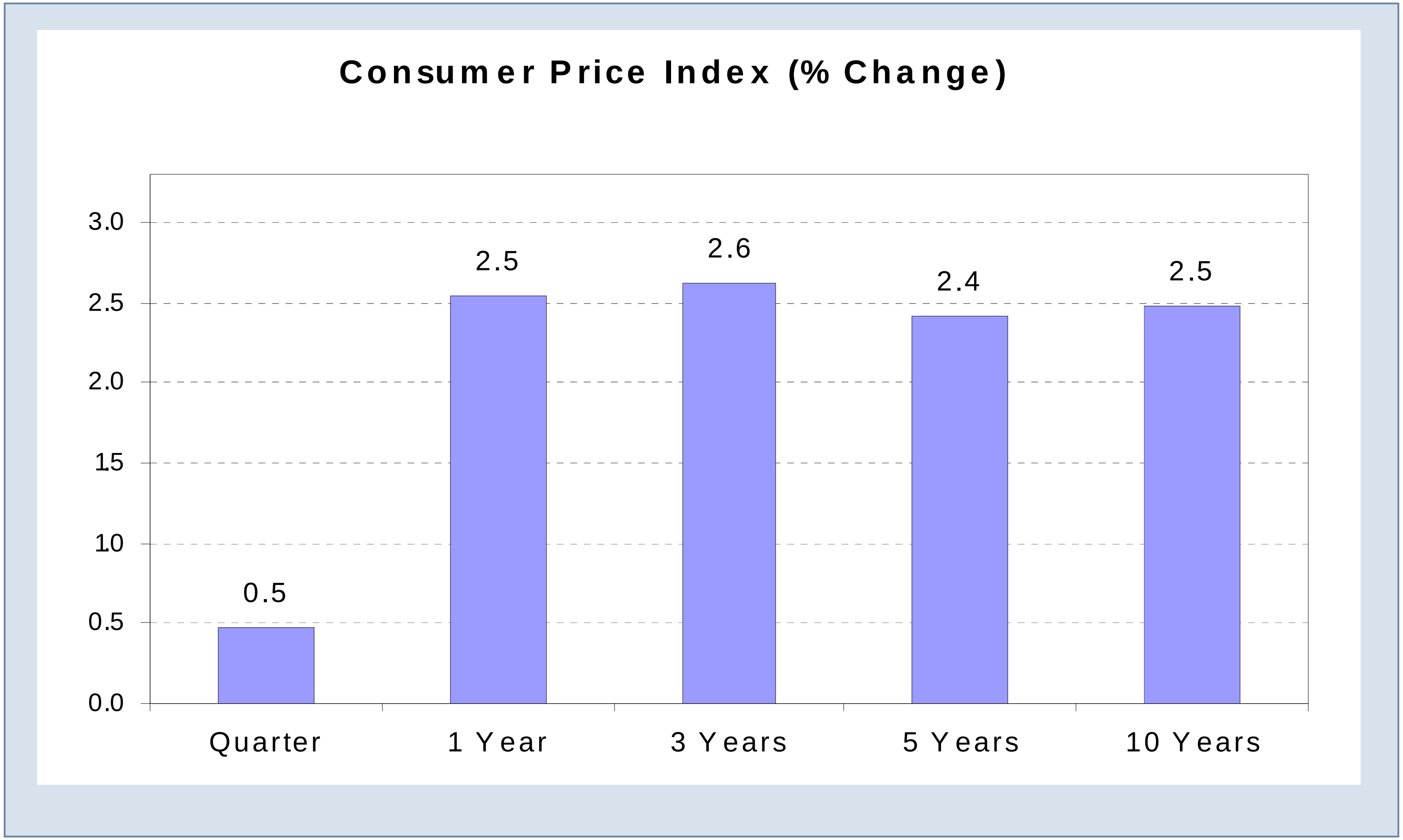
The Fed: More Tightening?

- The Federal Reserve kept its “measured” pace of increasing interest rates during the quarter. Although the economy weakened a bit during the second quarter (causing some analysts to call for a halt in the Fed’s tightening), the Fed never panicked.
- The market has recently upped its forecast, and Fed Futures imply that the Fed Funds rate will be 4.0% by the end of the year. (In contrast, our Fearless Forecast participants at the beginning of the year projected the Fed Fund rate to rise to 3.2% by the end of the year.)
- With year-over-year inflation below 3.0% and short rates above 3.0%, Fed policy is producing positive real short rates, which probably has not been seen since late 2001.

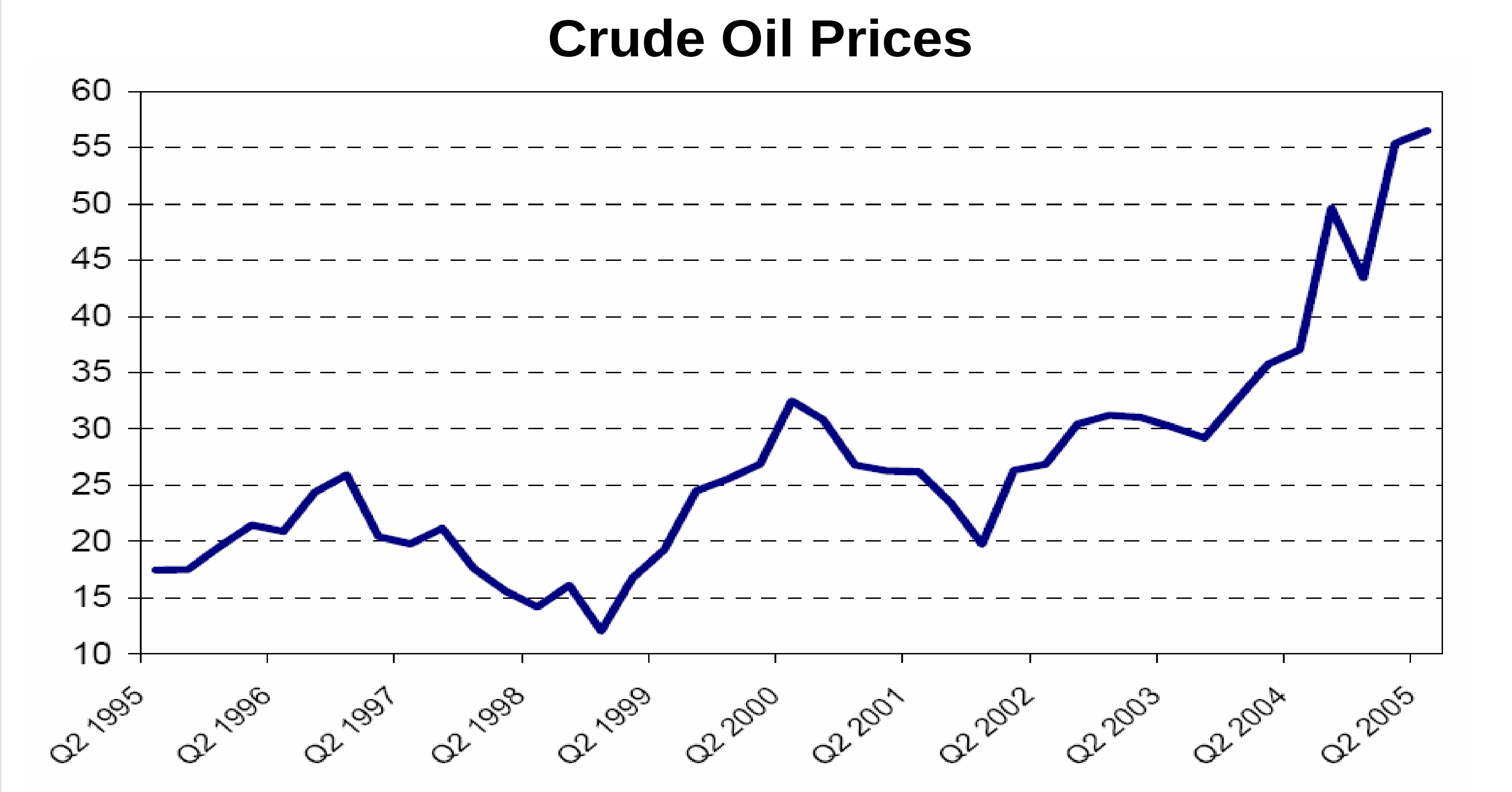
The Fed: A Change at the Top

- One major event for the Fed is the looming retirement of Alan Greenspan in early 2006. Early speculation is that Ben Bernanke will be nominated by the President. Bernanke advocates that the Fed should articulate an inflation target. Many believe that the Fed targets 1.0% to 2.0% as measured by the Personal Consumption Expenditures index.

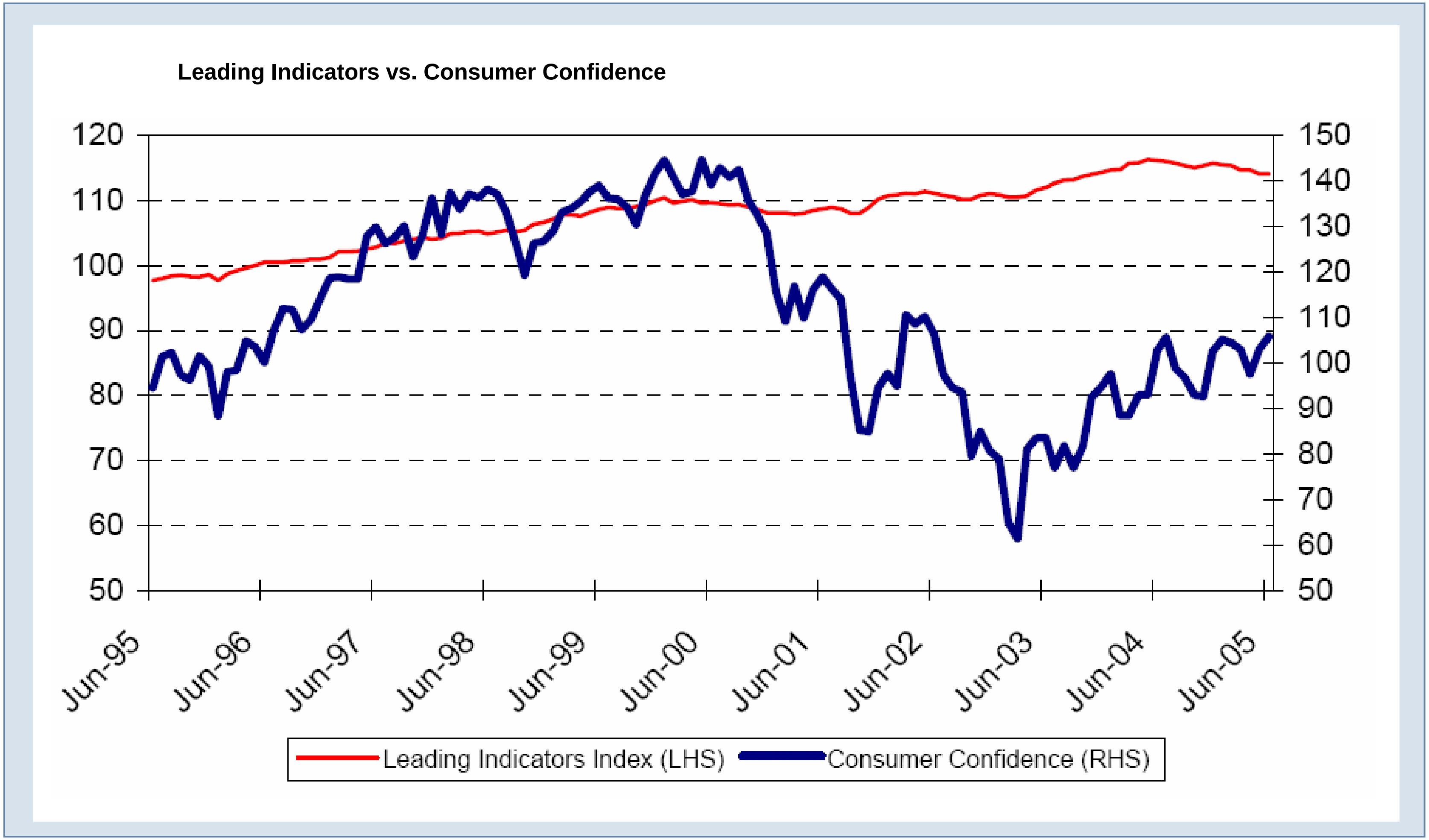
Inflationary Trends Have Stabilized



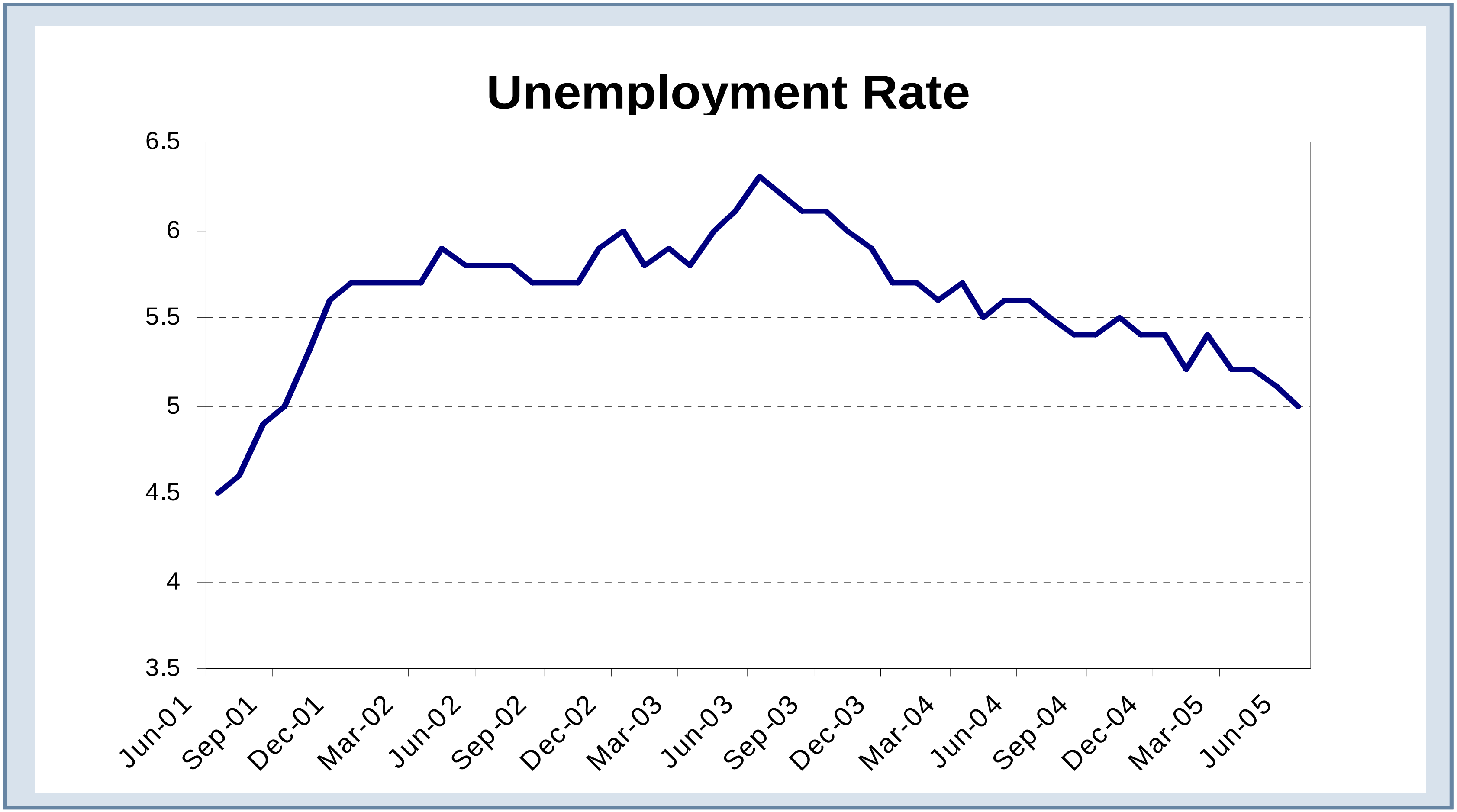
Crude Oil Prices Continued to Climb to Record Highs During the Second Quarter



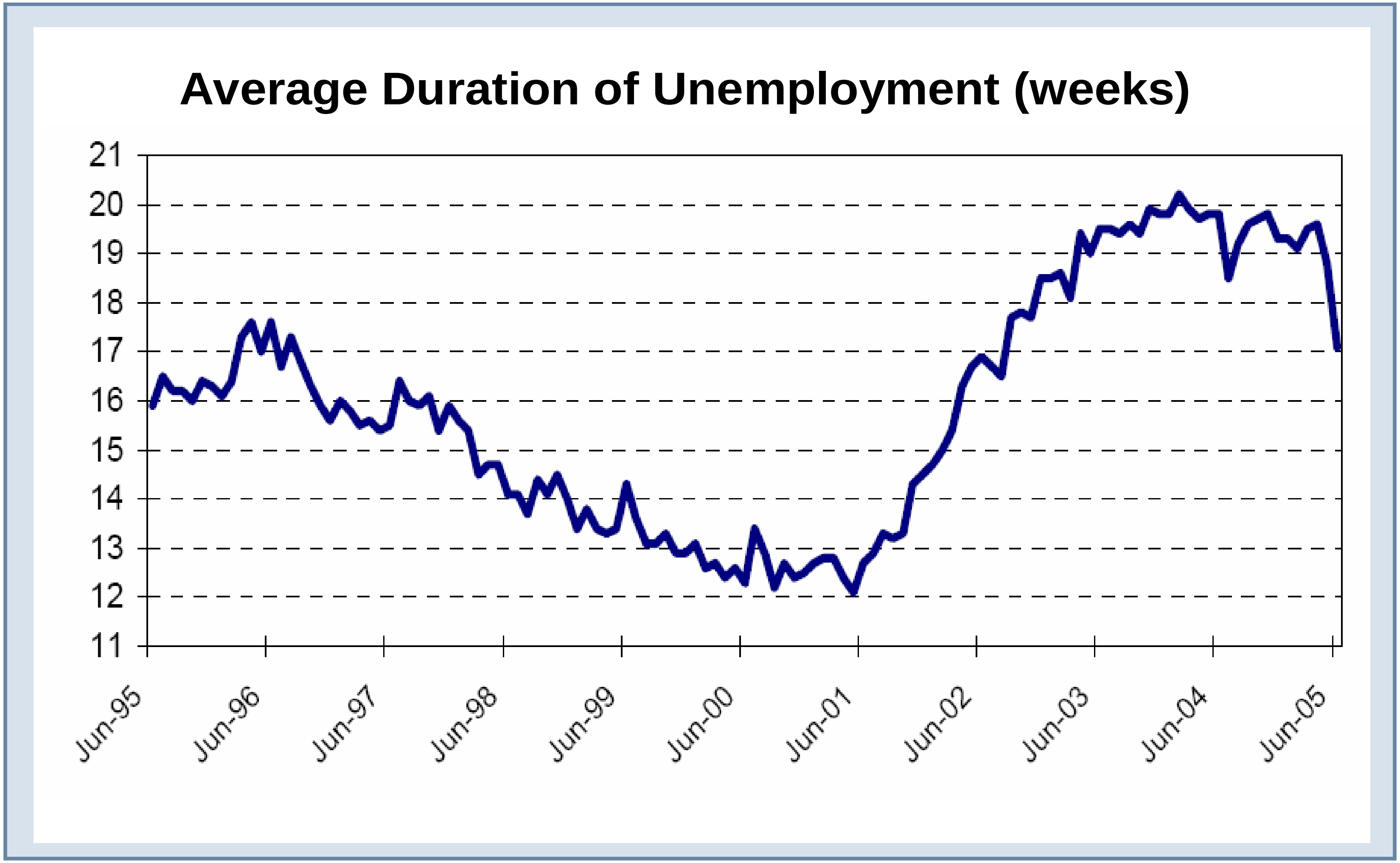
Consumer Confidence Rose to a 3-Year High in June



In June, the Civilian Unemployment Rate Fell to Its Lowest Level Since September 2001



The Average Duration of Unemployment Fell Sharply During the Quarter



Big Events Overseas

- **Europe: EU Shock**
  - Europe was shocked at the rejection of the EU constitution by voters in France and the Netherlands. In July, terrorism in London provided another jolt to the status quo.
  - In general, interest rates in Europe dropped as growth remained sluggish. European interest rates are now about 100 basis points lower than US rates.
  - In the UK, the long-awaited slowdown in its housing market appears to be underway. Slowing demand caused the Bank of England to announce a neutral interest rate policy.

Big Events Overseas

- **China and the Dollar**
  - The big news in the currency markets was China's dropping of the dollar peg in late July. Although the initial impact is minuscule, this offers great flexibility to China in the long run. By adopting a currency basket and gradual adjustment, China appears to have the best of both worlds: it drops the peg, and prohibits any crisis while its financial system matures and adapts to the requirements of flexible exchange rates.
  - Growth in China is quite robust, but cooling a little bit.
  - Japan still has modest growth and negligible inflation.
  - We expect that after six months of steady appreciation against almost every currency, the dollar will start to decline again. This makes international equities slightly more attractive than domestic equities.

The Dollar Continued to Strengthen, but the Cycle May Change

- The dollar gained 3.5% against the yen and 6.9% against the euro during the quarter. Year-to-date, the dollar has climbed 12% against the euro.
- Strong domestic GDP growth and a sizable interest rate differential between the US and Europe have combined with recent political turmoil surrounding the EU's integration process to bolster the dollar.

The New Worry: The Housing Bubble

- Only five years ago, we were looking at the wreckage of the "Tech bubble."
- With an eerie sense of déjà vu, we are now looking at a much more dangerous bubble: in housing prices.
- The "Tech bubble" was built on equity and "only" lost capital.
- The "Housing bubble," particularly on the two coasts, is built on debt, a dangerous mountain of debt.
  - Low interest rates and "exotic financing" fuel the boom
    - "Teaser rate' loans, interest-only loans, negative-amortization loans.
  - Loan quality is at an all-time low.
- What happens when rates rise, payments increase, and borrowers default?

Securities Markets

US Equity Markets
Stocks Rebound as Inflation Fears and Concerns Over Slowing Economy Abate

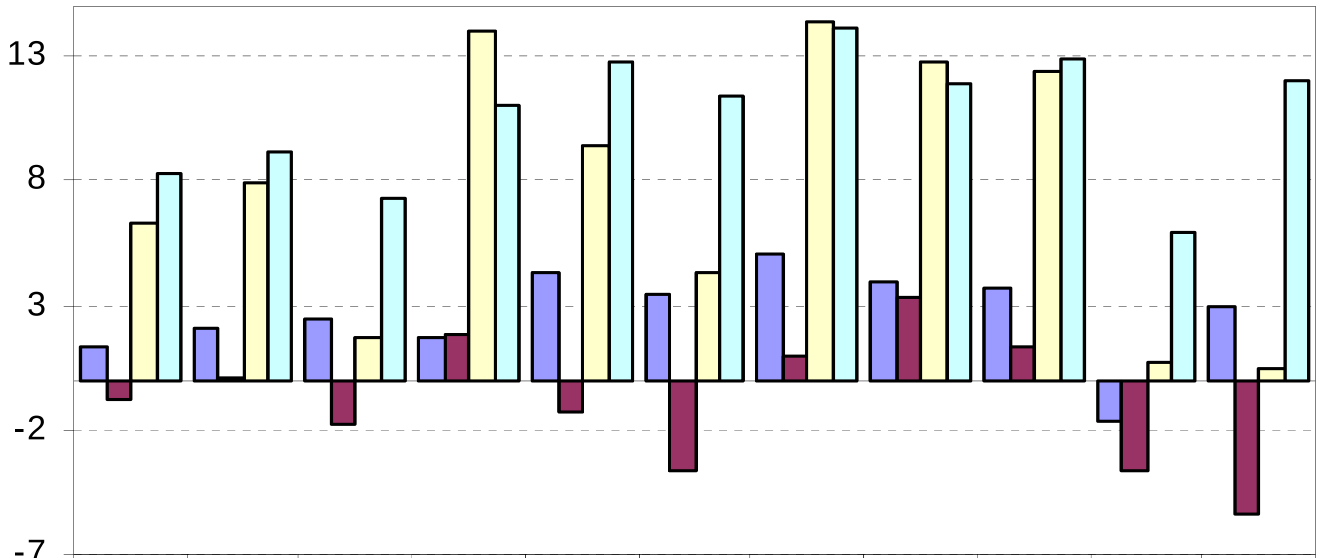
- Domestic equities rebounded during the second quarter, as first quarter GDP was revised upward and economic data seemed to indicate sustained, moderate growth.
- The S&P 500 Index advanced 1.4% during the quarter; however, blue-chip stocks suffered, as the DJIA declined 1.6%. Surprisingly, GM was the Dow’s top performer during the quarter, despite having its credit rating downgraded to junk status.
- Growth stocks outperformed value stocks among large caps, as the Russell 1000 Growth Index gained 2.5% versus a return of 1.7% for the Russell 1000 Value Index.
- The utilities sector was the strongest performer during the quarter, advancing 8.3%, while materials finished as the worst- performing sector, declining 10.0%.

US Equity Markets
Small Caps Outperform as Risk Aversion Subsides

- Small cap stocks rallied during the second quarter, outperforming large caps by a wide margin, as all sectors delivered positive returns, with the exception of the materials sector, which declined 8.6%.
- Value stocks continued to be favored among small caps, as the Russell 2000 Value Index gained 5.1% versus a 3.5% return for the Russell 2000 Growth Index.
- Over the trailing five-year period, the Russell 2000 Value Index has outperformed the Russell 2000 Growth Index by an annual rate of 20.6%.

US Equity Markets
Index Performance

Domestic Equity Returns



	S&P 500	Russell 1000	Russell 1000 Growth	Russell 1000 Value	Russell 2000	Russell 2000 Growth	Russell 2000 Value	S&P Mid Cap*	S&P Small Cap*	DJIA	Nasdaq
Quarter	1.37	2.05	2.46	1.67	4.32	3.48	5.08	3.96	3.68	-1.62	2.89
YTD	-0.81	0.11	-1.72	1.76	-1.25	-3.58	0.90	3.26	1.31	-3.65	-5.45
1 Year	6.32	7.92	1.68	14.06	9.45	4.29	14.39	12.71	12.40	0.66	0.45
3 Year	8.28	9.19	7.26	11.00	12.81	11.37	14.15	11.85	12.92	5.92	12.02

Quarterly Returns Are Low Single-Digit Positive

- Large cap results were weaker than mid and small cap.
- Small cap value continued to be the best place to invest.

2Q05	**Value**	**Core**	**Growth**
Large	**1.67**	**2.05**	**2.46**
Mid	**4.70**	**4.18**	**3.43**
Small	**5.07**	**4.31**	**3.48**
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

One-Year Returns Are Generally Excellent

- Very strong results for mid-cap across the style spectrum.
- Value is still the place to be!

1-Year Returns	Value	Core	Growth
Large	14.04	7.92	1.67
Mid	21.74	17.09	10.86
Small	14.39	9.44	4.27
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

Three-Year Results Show Narrowing Variations

- Returns, except for large growth, are above long-term expectations.
- Even large growth has improved dramatically.

3-Year Returns	Value	Core	Growth
Large	10.99	9.20	7.27
Mid	16.54	15.87	14.87
Small	14.18	12.82	11.37
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

Cumulative 3-Year Results Are Strong

- Returns for all are excellent; we had an excellent recovery.
- Mid-cap is up more than 50% across the style spectrum.

Cumulative 3-Yr	**Value**	**Core**	**Growth**
Large	**36.73**	**30.22**	**23.43**
Mid	**58.28**	**55.57**	**51.57**
Small	**48.86**	**43.60**	**38.14**
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

Five-Year Results Still Show Wide Variations

- Returns are negative for growth.
  - Large cap growth is still quite negative.
- Value, particularly small value, is superior to other styles.

5-Year Returns	Value	Core	Growth
Large	**6.57**	**-1.89**	**-10.36**
Mid	**14.88**	**7.36**	**-5.23**
Small	**16.16**	**5.75**	**-4.48**
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

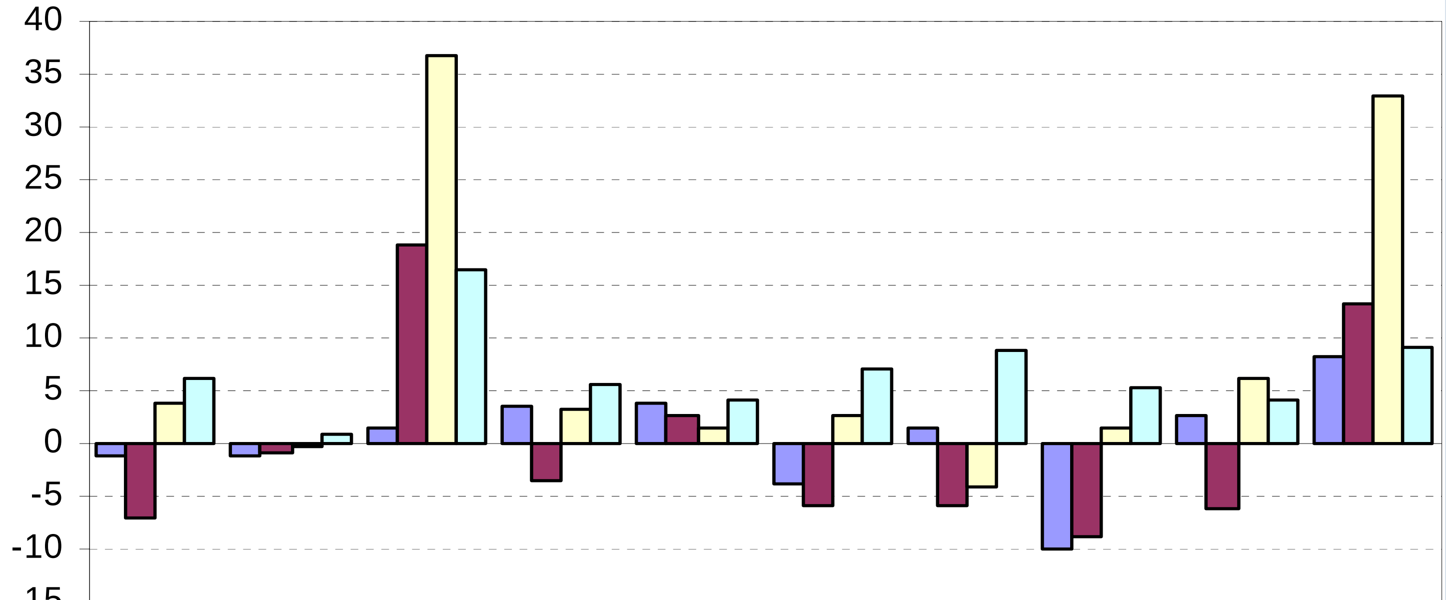
Cumulative 5-Year Results Extremely Different, Depending on Market Segment

- Large growth stocks lost nearly 42% of their value.
- Mid and small value stocks increased by more than 100%!

Cumulative 5-Yr	Value	Core	Growth
Large	**37.46**	**-9.10**	**-42.12**
Mid	**100.09**	**42.63**	**-23.55**
Small	**111.49**	**32.25**	**-20.48**
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

US Equity Markets
Index Performance

S&P 500 Returns by Sector



	Cons. Discr.	Cons. Stpls.	Energy	Financl.	Health Care	Industrials	Tech.	Materials	Telecom	Utilities
Quarter	-1.21	-1.17	1.52	3.65	3.75	-3.79	1.60	-9.97	2.64	8.34
YTD	-7.03	-1.02	18.84	-3.57	2.69	-5.75	-5.99	-8.83	-6.20	13.16
1 Year	3.70	-0.16	36.76	3.12	1.48	2.69	-4.06	1.37	6.32	32.96
3 Year	6.09	0.88	16.38	5.57	4.08	6.92	8.68	5.32	4.00	9.24

Source: Datastream

US Equity Markets
Top Positive and Negative Contributors

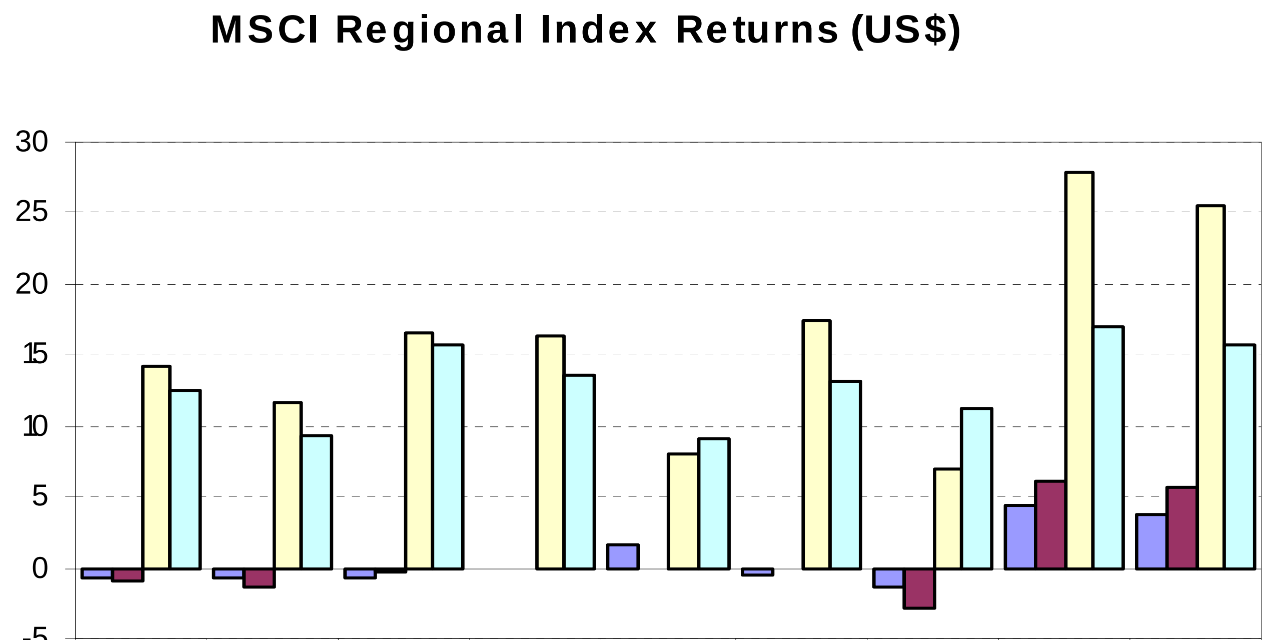
Stock	Return (%)	End of Quarter Weight	Rank	Stock	Return (%)	End of Quarter Weight	Rank
INTEL CORP	12.35%	1.33%	9	IBM	-18.58%	1.36%	15
PFIZER INC	5.71%	1.81%	5	GENERAL ELEC CO	-3.30%	3.54%	1
CITIGROUP INC	3.85%	2.16%	4	EXXON MOBIL CORP	-3.09%	3.51%	2
MOTOROLA INC	22.24%	0.34%	61	3M CO	-15.14%	0.61%	42
MICROSOFT CORP	3.10%	2.42%	3	TYCO INTL LTD NEW	-13.31%	0.63%	39
BANK OF AMERICA CORP	4.44%	1.65%	8	DU PONT E I DE NEMOURS & CO	-15.34%	0.47%	65
CORNING INC	49.33%	0.15%	104	DISNEY WALT CO	-12.36%	0.55%	47
CISCO SYS INC	6.65%	1.06%	14	WAL MART STORES INC	-3.51%	1.94%	6
AMERICAN INTL GROUP INC	5.08%	1.33%	10	COMCAST CORP NEW	-9.21%	0.69%	33
BOEING CO	13.33%	0.43%	49	QUALCOMM INC	-9.64%	0.56%	43
CONOCOPHILLIPS	7.77%	0.69%	23	EBAY INC	-11.41%	0.47%	63
UNITEDHEALTH GROUP INC	9.33%	0.56%	35	JOHNSON & JOHNSON	-2.72%	1.85%	7
BEST BUY INC	27.33%	0.16%	114	MORGAN STANLEY	-7.88%	0.58%	40
HEWLETT PACKARD CO	7.52%	0.58%	32	DOW CHEM CO	-10.00%	0.44%	66
LILLY ELI & CO	7.66%	0.55%	36	VIACOM INC	-7.87%	0.52%	50
TEXAS INSTRS INC	10.22%	0.39%	58	MCDONALDS CORP	-10.89%	0.37%	73
PRUDENTIAL FINL INC	14.39%	0.28%	75	CHEVRON CORP NEW	-3.33%	1.13%	16
METLIFE INC	14.94%	0.27%	77	APPLE COMPUTER INC	-11.66%	0.32%	83
WELLPOINT INC	11.11%	0.36%	67	TIME WARNER INC	-4.79%	0.76%	25
NEXTEL COMMUNICATIONS	13.69%	0.29%	72	FEDEX CORP	-13.69%	0.26%	100
ABBOTT LABS	5.72%	0.67%	28	GOLDMAN SACHS GROUP INC	-7.02%	0.49%	53
FEDERAL NATL MTG ASSN	7.73%	0.49%	41	UNITED PARCEL SERVICE INC	-4.47%	0.75%	27
ALLSTATE CORP	11.12%	0.34%	68	ALCOA INC	-13.52%	0.25%	111
EXELON CORP	12.73%	0.28%	74	INTL PAPER CO	-17.21%	0.17%	185
WELLS FARGO & CO NEW	3.78%	0.94%	17	ILLINOIS TOOL WKS INC	-10.69%	0.24%	107

Utilities | Cons. Non Durables/Services | Cap Goods | Financials | Health Care | Basic Inds | Info. Tech | Energy | Cons Durables | Transportation

Non-US Equity Markets
Strengthening Dollar Mutes Strong Local Returns for European Equities

- The MSCI EAFE Index returned -0.8% during the second quarter, as the dollar appreciated 6.9% versus the euro and 3.5% versus the yen.
- In local currency terms, the EAFE Index gained 4.8%, as European equities posted a third consecutive quarter of positive returns, helped by local returns of 5.9% and 6.5%, respectively, from Germany and France. However, those gains translated into significant losses in dollar terms, because of the sharp appreciation of the US currency.
- Growth stocks modestly outperformed value stocks during the quarter, with the EAFE Growth Index losing 0.7% versus a loss of 0.8% for the EAFE Value Index.

Non-US Equity Markets
EAFE Regional Performance



	EAFE (Free)	EAFE Growth	EAFE Value	EAFE & EMF	North America	Europe	Pacific (incl. Japan)	AC Asia (Free) ex Japan	AC Far East (Free) ex
Quarter	-0.75	-0.66	-0.82	-0.17	1.71	-0.50	-1.35	4.38	3.76
YTD	-0.85	-1.47	-0.22	-0.04	-0.05	0.01	-2.87	6.00	5.65
1 Year	14.13	11.73	16.47	16.24	7.99	17.41	6.97	27.78	25.56
3 Year	12.51	9.38	15.63	13.65	9.17	13.09	11.17	17.03	15.74

Source: Datastream

Fixed Income Markets
Bond Market Posts Surprisingly Strong Results Despite Rising Short-Term Rates and High-Profile Credit Downgrades

- The yield curve continued to flatten during the second quarter. As the Fed raised rates by an additional 50 basis points on the short end of the curve, interest rates for maturities greater than one-year actually declined.
- The spread between 2- and 10-year Treasuries narrowed to 28 basis points, as the 10-year finished the quarter with a yield of 3.9%.
- The Lehman Brothers Aggregate Index gained 3.0% during the quarter.

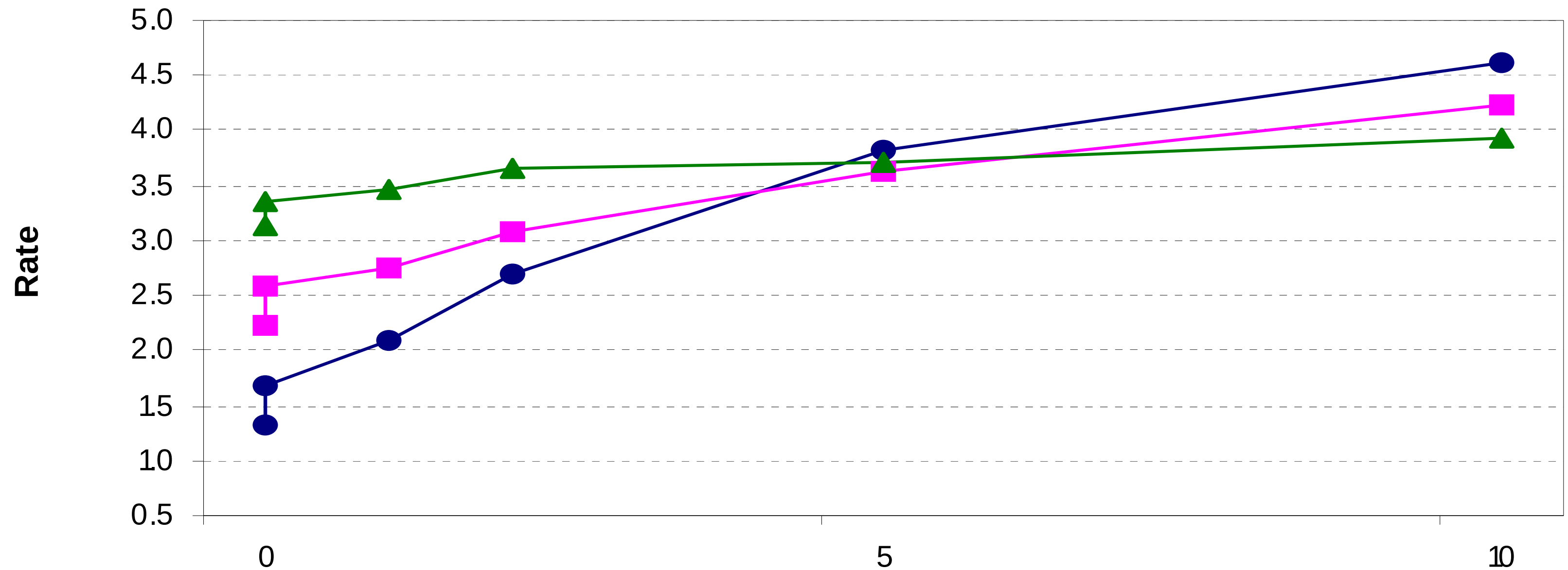
Fixed Income Markets
Bond Market Posts Surprisingly Strong Results Despite Rising Short-Term Rates and High-Profile Credit Downgrades

- The credit market remained resilient amid major downgrades in the auto sector. Standard & Poor's downgraded GM's and Ford's debt to junk status, creating some volatility in the corporate bond market, but the Lehman Brothers US Credit Index finished the quarter with a 3.6% gain, on par with the 3.6% advance of the Lehman Treasury Index.
  - Over $80 billion of GM's and Ford's bonds will now trade in the high-yield market, which had previously comprised only about $600 billion.
- Long-duration securities continued to deliver solid returns for investors, as the Lehman Long Gov/Corp Index gained 7.1% during the quarter.
- High-yield securities gained 2.8% as measured by the Lehman High Yield Index, with higher-rated bonds outperforming lower- quality issues.

Yield Curve Flattened Further

Short Rates Continued to Rise While Long Rates Fell

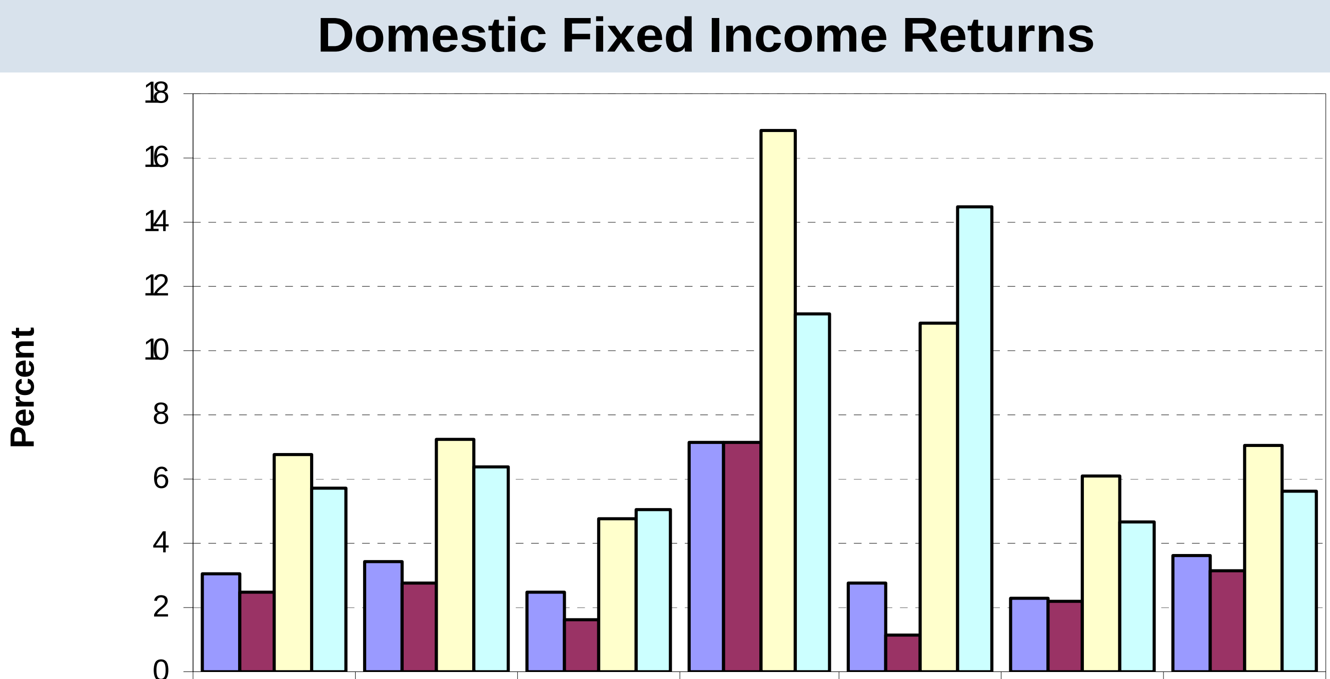
Flattening Yield Curve



Years	0.25	0.5	1	2	5	10
Jun-04	1.33	1.68	2.09	2.7	3.81	4.62
Dec-04	2.22	2.59	2.75	3.08	3.63	4.24
Jun-05	3.13	3.34	3.45	3.66	3.72	3.94

Source: Datastream

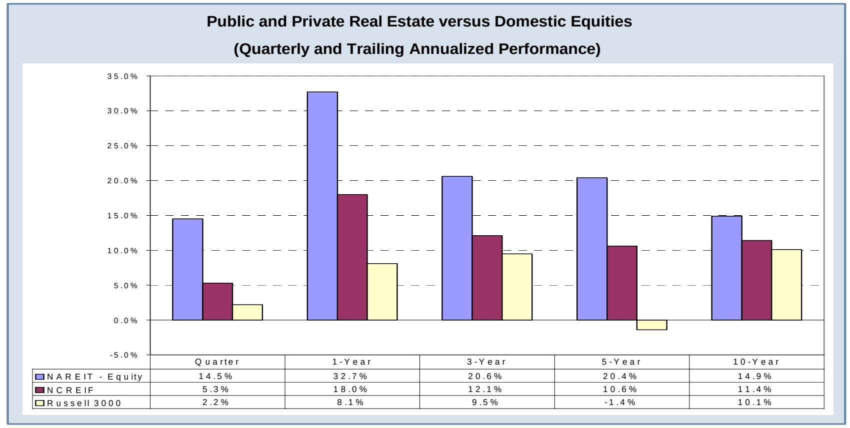
Fixed Income Markets
Index Performance



	Lehman Aggregate	Lehman Gov/Corp	Lehman Gov/Corp Int	Lehman Gov/Corp Long	Lehman High Yield	Lehman Mortgage Backed	Lehman Treasury
Quarter	3.01	3.44	2.48	7.14	2.77	2.28	3.63
YTD	2.52	2.74	1.58	7.17	1.11	2.15	3.19
1 Year	6.81	7.26	4.77	16.88	10.86	6.14	7.05
3 Year	5.76	6.41	5.08	11.13	14.51	4.67	5.63

Equity REITs Surge During Q2 as Mortgage Rates Drift Lower

- Real Estate Investment Trusts rebounded sharply, as the NAREIT Equity REIT Index spiked 14.5% during the second quarter after plummeting 7.1% during Q1. On a trailing one-year basis, the index has returned 32.7%.
- Over the trailing five-year period, REIT returns have outpaced the broad domestic equity market by 21.8% on an annualized basis.
- Returns for the private real estate market remained strong, as the NCREIF Property Index posted a 5.3% gain for the quarter, with industrials as the strongest-performing property type and the East once again posting the largest gains on a regional basis.
- On a year-over-year basis, housing starts have increased 9.7%.

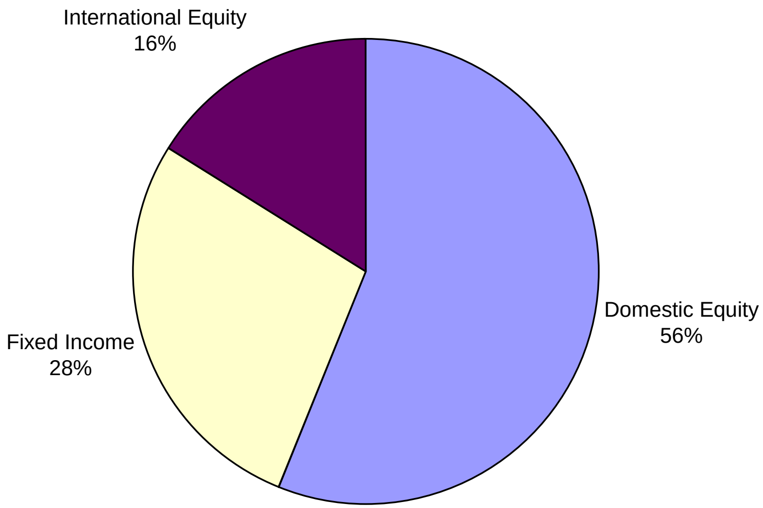


	Quarter	1-Year	3-Year	5-Year	10-Year
NAREIT - Equity	14.5%	32.7%	20.6%	20.4%	14.9%
NCREIF	5.3%	18.0%	12.1%	10.6%	11.4%
Russell 3000	2.2%	8.1%	9.5%	-1.4%	10.1%

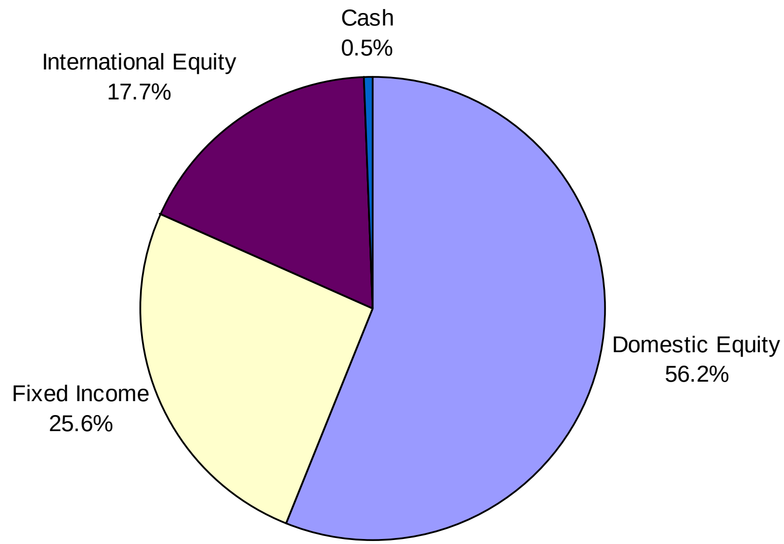
ASRS Total Fund Performance

Total Fund Asset Allocation
June 30, 2005

Policy Adjusted for Transition into Real Estate

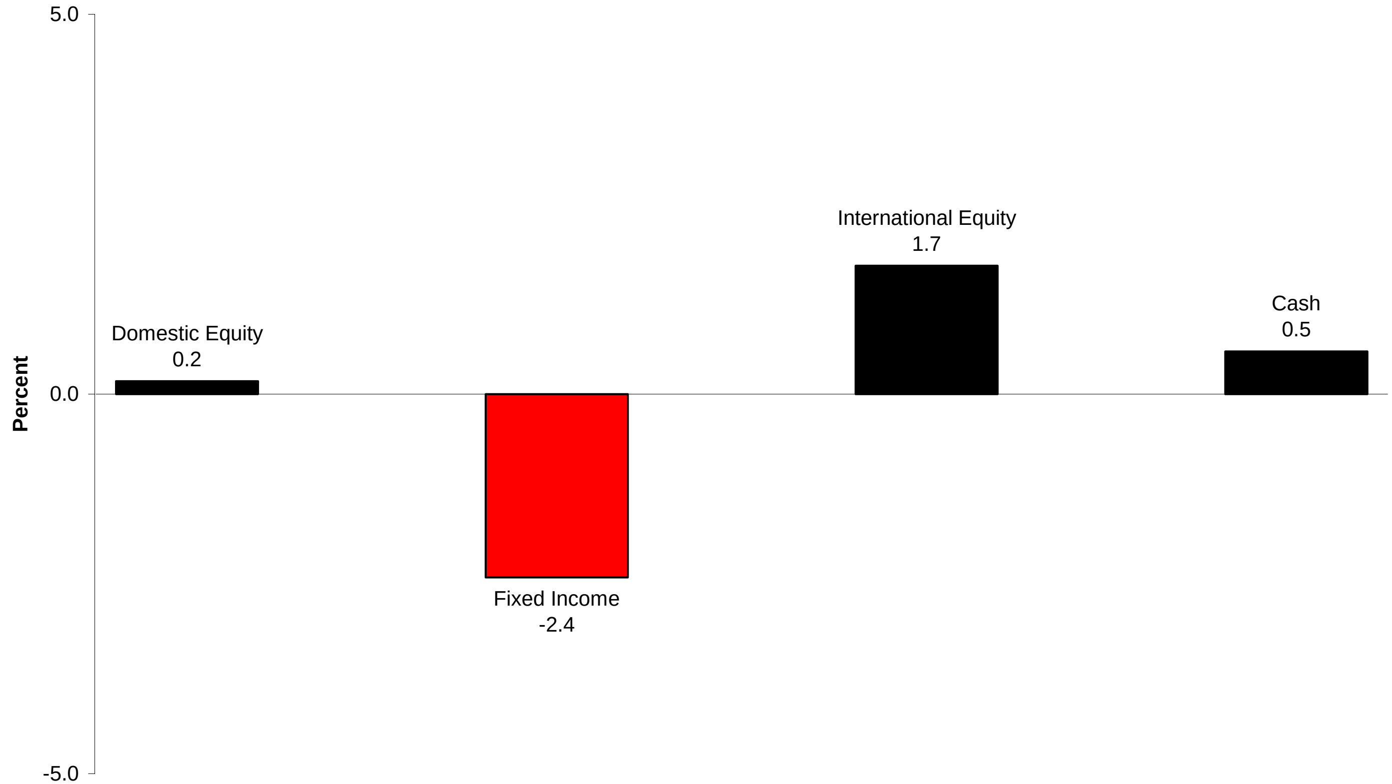


Actual Asset Allocation



Total Fund Asset Allocation
June 30, 2005

Actual Asset Allocation vs. Policy Adjusted for Transition into Real Estate



Total Fund Performance
For Periods Ending June 30, 2005

	Quarter	1 Year	3 Years	5 Years	10 Years	Inception (6/30/75)
Total Fund	1.7%	8.5%	9.2%	2.2%	9.4%	10.9%
Benchmark*	1.5	7.8	8.5	1.3	8.1	9.1
Excess Return	0.2	0.7	0.7	0.9	1.3	1.8

* Interim Benchmark of 56% S&P 500/28% LB Aggregate/16% EAFE, which incorporates a proration of 6% real estate.

Policy History:
• 1/1/89-12/31/91 – 60% S&P 500/40% LB Aggregate
• 1/1/92-12/31/94 – 50% S&P 500/40% LB Aggregate/10% EAFE
• 1/1/95-6/30/97 – 45% S&P 500/40% LB Aggregate/15% EAFE
• 7/1/97-12/31/99 – 50% S&P 500/35% LB Aggregate/15% EAFE
• 1/1/00-9/30/03 – 53% S&P 500/30% LB Aggregate/17% EAFE
• 10/1/03-present – 53% S&P 500/26% LB Aggregate/15% EAFE/6% Custom Real Estate Benchmark.

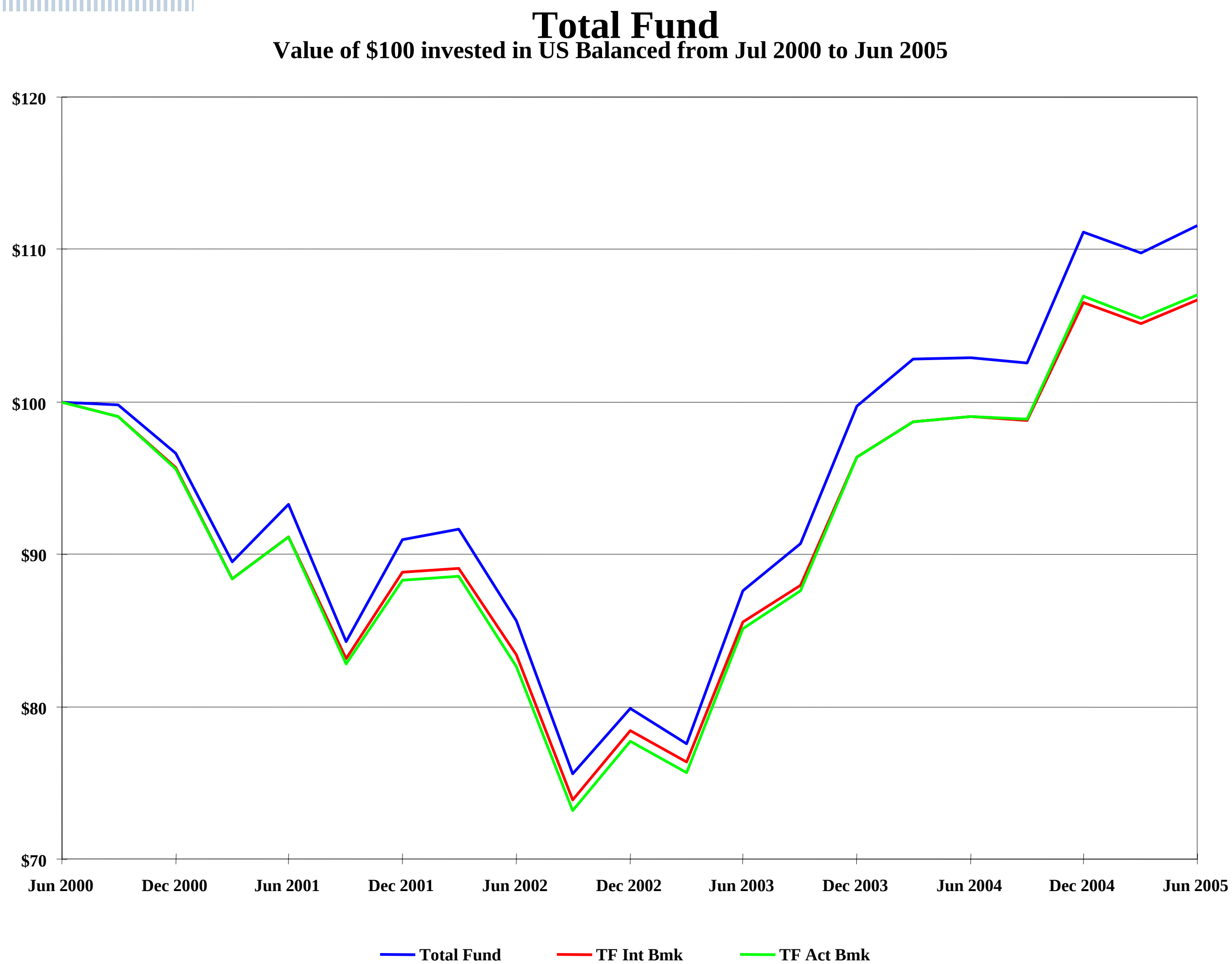
Total Fund Ranking
For Periods Ending June 30, 2005

	1 Year	3 Years	5 Years	10 Years
Russell/Mellon Trust Universes				
Master Trust Funds - Total Funds	66	59	77	49
Total Funds - Public	85	80	95	37
Total Funds Billion Dollar - Public	91	85	100	43
Total Funds - Corporate	68	54	69	49
Wilshire Trust Universe Comparison Service				
Master Trusts - All	65	59	77	67
Public Funds	65	56	80	48
Corporate	67	56	73	78
Callan Associates Inc.				
Total Funds	63	51	80	48
Public Funds	62	43	87	22
Corporate Funds	60	45	79	62

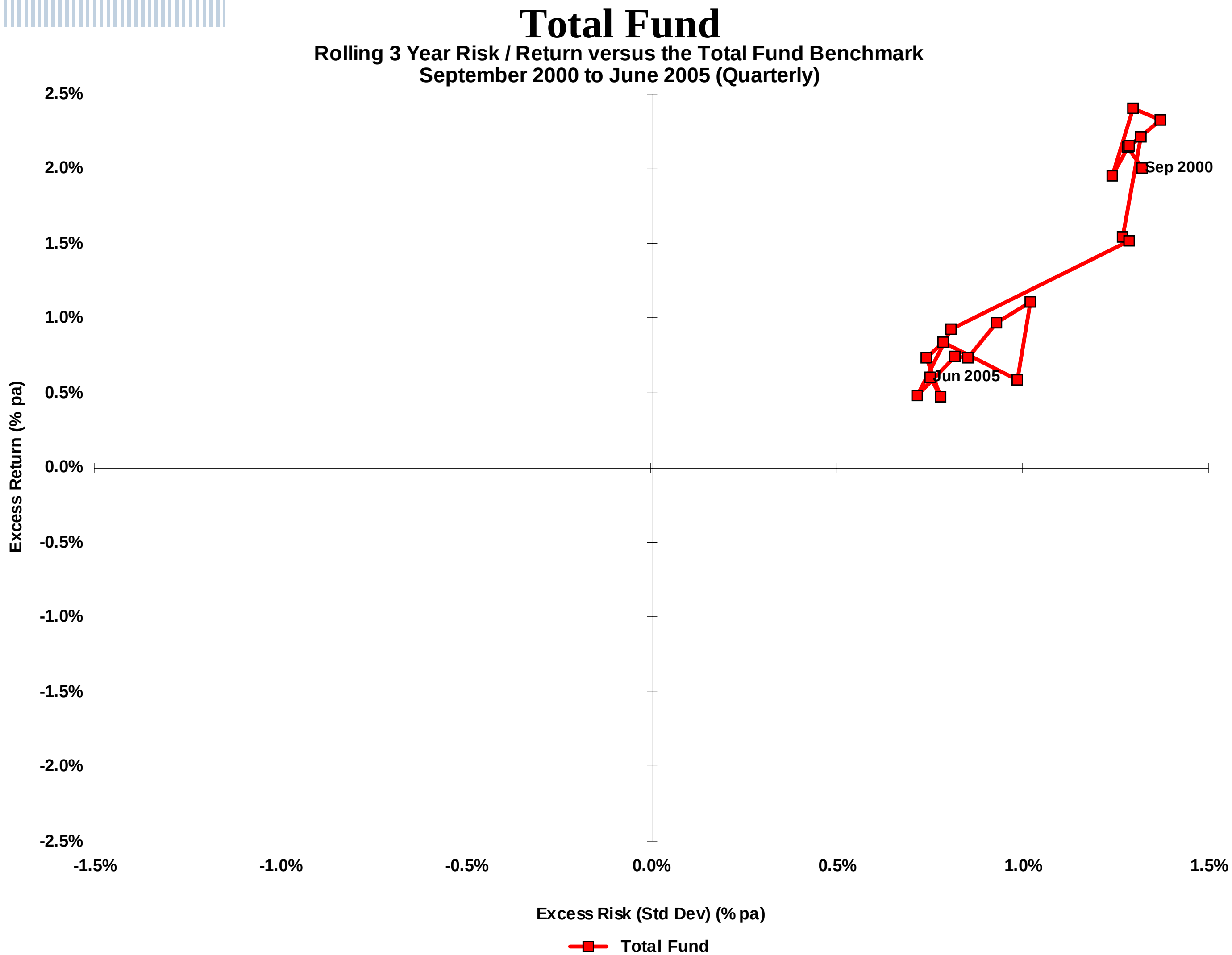
Total Fund Performance
For Periods Ending June 30, 2005

		1 Year	3 Years	5 Years	10 Years
	ASRS Total Fund	8.5%	9.2%	2.2%	9.4%
1)	Asset Allocation Target	7.4%	7.8%	8.0%	8.6%
	Excess Return	1.1%	1.4%	-5.8%	0.8%
2)	CPI Inflation + 3.75%	6.2%	6.4%	6.2%	6.2%
	Wage Inflation + 3.75%	4.9%	6.9%	7.0%	7.0%
	Excess Return - CPI	2.3%	2.8%	-4.0%	3.2%
	Excess Return - Wage	3.6%	2.3%	-4.8%	2.4%
3)	Actuarial Assumption	8.0%	8.0%	8.0%	8.0%
	Excess Return	0.5%	1.2%	-5.8%	1.4%

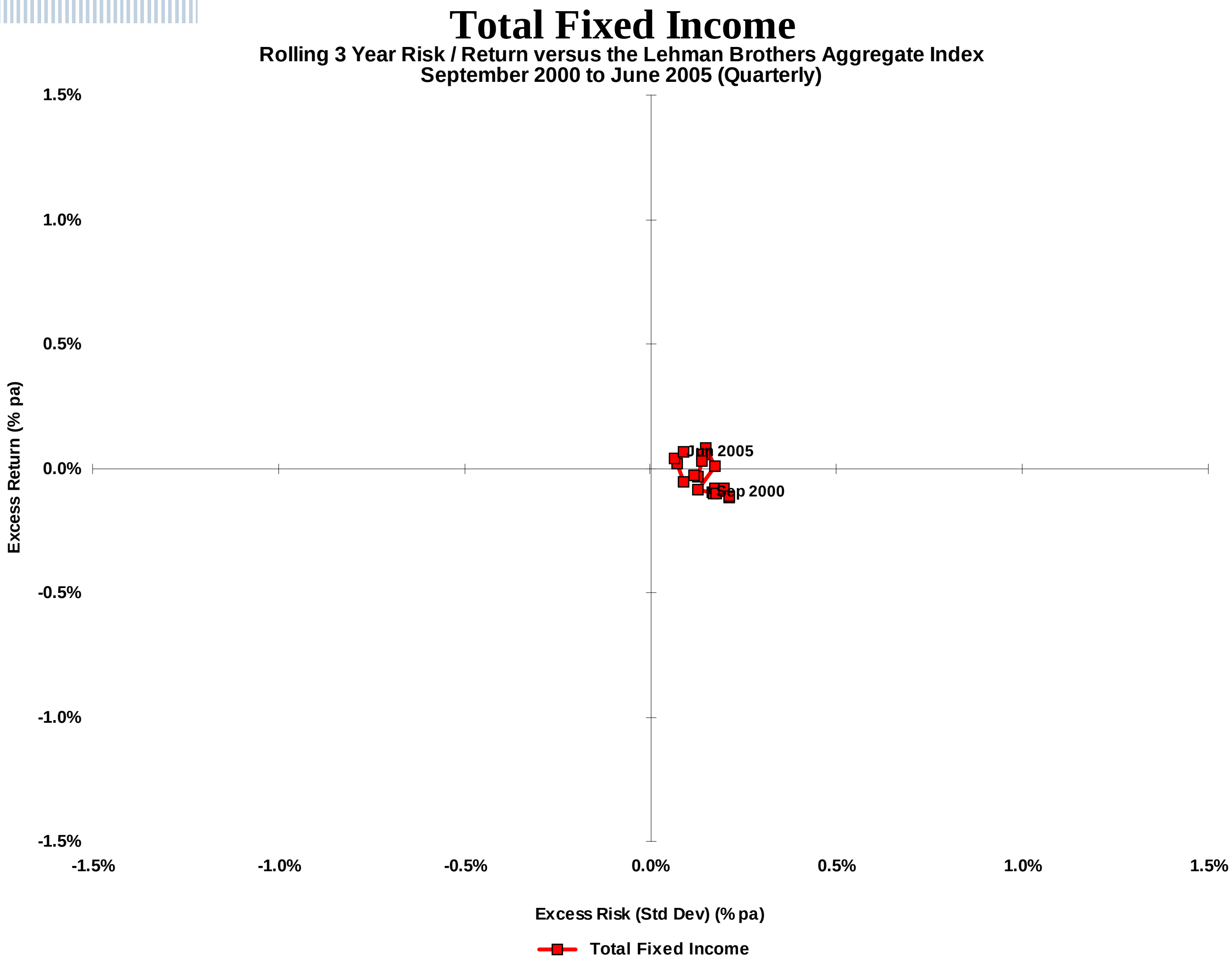
Total Fund Growth



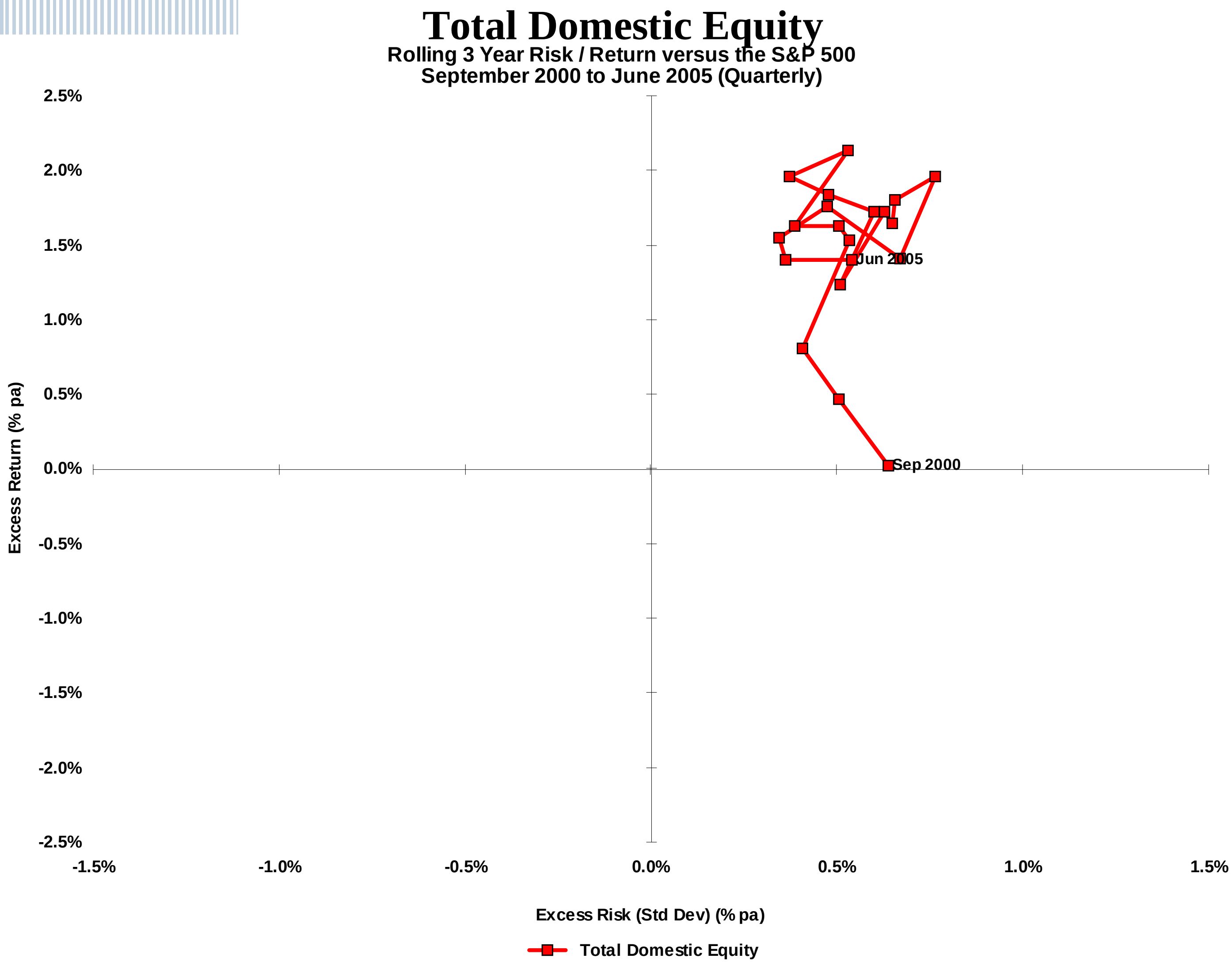
Risk/Return Analysis



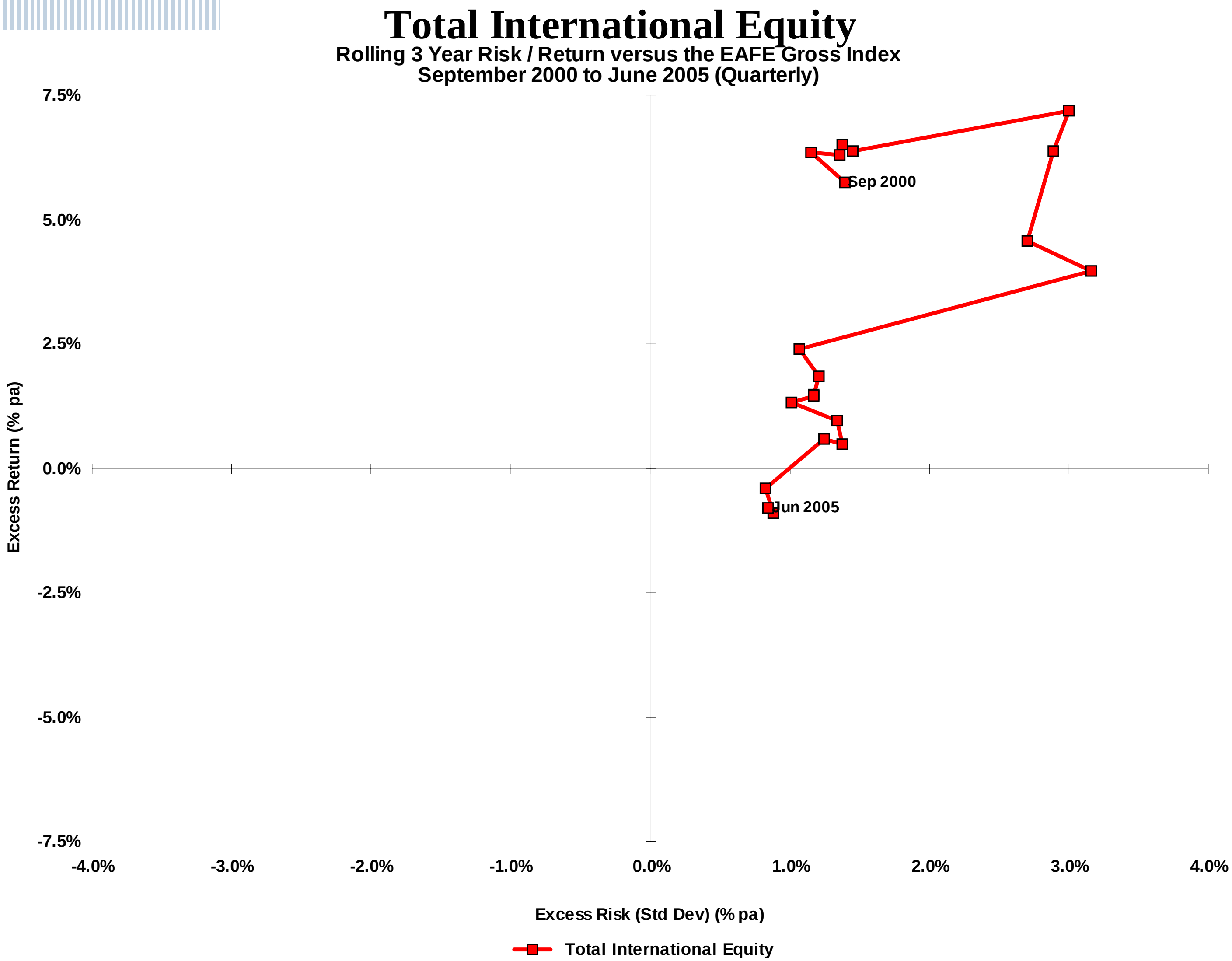
Risk/Return Analysis



Risk/Return Analysis



Risk/Return Analysis



Performance vs. Benchmarks
For the 3 Years Ending June 30, 2005

	Return	Assumed ROR	Std. Dev.
Total Fund	9.2%	7.8%	13.1%
Benchmark*	8.5		12.5
Domestic Fixed	5.8	5.0	3.9
LB Aggregate	5.8		3.9
Domestic Equity	9.7	8.9	17.7
S&P 500	8.3		17.1
Intl. Equity	11.7	9.1	22.9
EAFE	12.5		22.1

* Interim Benchmark of 56% S&P 500/28% LB Aggregate/16% EAFE, which incorporates a proration of 6% real estate.

Performance vs. Benchmarks
For the 5 Years Ending June 30, 2005

	Return	Assumed ROR	Std. Dev.
Total Fund	2.2%	8.0%	13.1%
Benchmark*	1.3		12.4
Domestic Fixed	7.4	5.2	3.9
LB Aggregate	7.4		3.8
Domestic Equity	-0.4	9.1	19.0
S&P 500	-2.4		18.5
Intl. Equity	0.5	9.5	21.0
EAFE	-0.2		20.5

* Interim Benchmark of 56% S&P 500/28% LB Aggregate/16% EAFE, which incorporates a proration of 6% real estate.

- ASRS Domestic Fixed Income Manager(s) Review